STRATEGIC SEALIFT PROGRAM (SSP)

The Strategic Sealift Program (SSP) is a focused logistics program that produces ships to transport or provide afloat pre-positioned logistic support for a projected military force. This mission is a vital part of dominant maneuver in the current power projection environment. The notional cargo per ship is envisioned as equipment for one-third of a heavy Army brigade task force and its supporting supplies. SSP projects and sustains the force by providing strategically mobile forces, ready on arrival. The SSP ships are Large, Medium Speed, Roll-on/Roll-off (RO/RO) vessels referred to as LMSR. Their sizable dimensions are 950 feet long, 106 feet wide, and 55,000 long ton displacement; capable of steaming at 24 knots. The sealift ships are expected to be capable of self-sustained RO/RO and Lift-on/Lift-off (LO/LO) operations at a pier and in In-The-Stream (ITS) scenarios through stern and side port ramps to lighterage via a RO/RO Discharge Facility.

The LMSR ships are not armed and do not have a combat system. They do have a C3I suite sufficient to perform their intended mission in conjunction with other naval vessels.

BACKGROUND INFORMATION

SSP is scheduled to deliver 20 ships, five of which are conversions of existing commercial container vessels, and fifteen of which will be newly constructed ships. Officially, there will be 19 LMSR ships in the SSP. The twentieth ship had been converted to a Maritime Pre-positioning Force ship. All LMSR ships use common Navy-furnished cargo handling systems. Three contractors are completing construction of the LMSRs. A performance type procurement description was used, with the result that ship configurations differ as the respective builders have interpreted the mission requirements.

As authorized in the acquisition strategy, developmental testing has been limited, focusing on production assurance testing by government agents in conjunction with the builders. Navy, U.S. Coast Guard, and American Bureau of Shipping representatives witnessed systems and integration testing.

The current TEMP was approved in June 1996. In view of the single ship mission and similarities in the LMSR configurations, it treats the ships in two groupings: conversion ships and new-construction ships. The TEMP outlines a mix of operational test events and operational assessments designed to address the variance among the separate designs. Two IOT&E's were planned, one of a conversion ship and the other of a new construction ship. Operational assessments of conversion and new construction ships would examine the operational effectiveness and suitability of the ship designs not subjected to full operational testing.

The IOT&E (OT-IIA) of the National Steel Shipbuilding Company (NASSCO) conversion LMSR ship was planned and conducted in accordance with the DOT&E-approved TEMP and OT Plan. OT-IIA was conducted during September 1996, aboard United States Naval Ship (USNS) SHUGHART in Savannah, GA, at sea and in Hampton Roads, VA, and in conjunction with a planned Army sealift deployment exercise, which moved a representative load of Army equipment (over 1,000 pieces, including tanks, trucks and various helicopters) from the 3d Infantry Division. Limited ITS operations were conducted at Ft. Story, VA.

TEST & EVALUATION ACTIVITY

The Avondale Industries new construction LMSR IOT&E (OT-IIB), originally scheduled for July 1998, had been delayed by several production issues and by the difficulties of providing sufficient Army-unit equipment for the test. In September 2001, after extensive coordination with the Commander, U.S. Central Command (CENTCOM), USNS SEAY was selected as the test platform to conduct OT-IIB while supporting CENTCOM's BRIGHT STAR 01/02 Exercise. This test was designed to examine the Avondale's new construction ship as part of the strategic sealift system and focused on the surge sealift mission. Due to the failure of one of the ship's controllable reversible propellers, and the events of September 11, 2001, this test was postponed.

The TEMP update is in final development and should be forwarded to OSD for approval shortly.

TEST & EVALUATION ASSESSMENT

The first phase IOT&E event (OT-IIA) found the NASSCO conversion LMSR to be potentially operationally effective and potentially operationally suitable. No significant deficiencies had been observed from the operational testing, which is focused on ship capabilities, with the exception of comprehensive ITS operations in sea-states; however, no shortfalls have been observed in load planning and training of personnel for executing the mission, notwithstanding an adequate doctrine that is not yet in place to guide execution. Considerable data has been collected in the OTA assessments of the Newport News Shipyard conversion ships and the NASSCO new-construction LMSR, but the reports of those assessments have not been delivered.

In-The-Stream (ITS) RO-RO operations (doctrine, training, expected offload flow rate, and stern ramp operations) and LO-LO capabilities, including control of crane pendulation, are two general areas of concern. ITS operations have not been tested adequately and are specific areas of concern. It is highly probable that LMSR ship mission performance will be hindered by existing deficiencies in the Strategic Sealift System**.** Shortfalls in the Sea State 3 lighterage system (capability, inventory, and doctrine) will adversely affect the United States' ability to project power in a timely manner in situations where adequate port facilities are not available. A total of only 113 ports were identified as having sufficient depth of water and length of berth to allow pier side offload of an LMSR and only 31 of these are in locations other than the Americas, Europe, Australia, and Japan. Although a force may get to a crisis in a timely fashion, in some situations, it will be challenged to get its equipment off the ship. In the Stream offload of a tactically representative equipment load has not been demonstrated under operationally realistic conditions. The overall class assessment of ITS operations, which was to be conducted during the BRIGHT STAR 01/02 Exercise, would have collected minimal test data and been insufficient to complete an evaluation of the ship's ability to unload "in-the-stream." An FOT&E will be required to demonstrate ITS operations under realistic conditions, and additional testing of ITS offload capability in Sea State 3 must be performed when Sea State 3-capable lighterage is developed.